

Appl. No. 10/727,400
Amdt. dated September 3, 2004
Reply to Office Action dated August 26, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1.-3. (CANCELED)

Claim 4. (PREVIOUSLY PRESENTED) An information processing device comprising:

- a heat conductive element;
 - a processor in thermal communication with said heat conductive element, wherein said processor generates heat when energized, and wherein said heat conductive element dissipates heat generated by said processor;
 - a circuit board comprising a mounting area, wherein said processor is mounted at said mounting area; and
 - a compressible element,
- wherein the circuit board is between the compressible element and the processor.

Claim 5. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the information processing device is a cartridge.

Claim 6. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the compressible element pushes the circuit board and the processor toward the heat conductive element.

Claim 7. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the heat conductive element is a heat dissipation plate.

Appl. No. 10/727,400

PATENT

Amdt. dated September 3, 2004

Reply to Office Action dated August 26, 2004

Claim 8. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the heat conductive element comprises aluminum.

Claim 9. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the compressible element comprises silicon rubber.

Claim 10. (PREVIOUSLY PRESENTED) The information processing device of claim 4 further comprising an electrical contact at an edge region of the circuit board.

Claim 11. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the circuit board is a printed circuit board.

Claim 12. (PREVIOUSLY PRESENTED) The information processing device of claim 4 further comprising a ROM on the circuit board.

Claim 13. (PREVIOUSLY PRESENTED) The information processing device of claim 4 further comprising a heat dissipating material between the heat conductive element and the processor, wherein the heat dissipating material directly contacts the processor and the heat conductive element.

Claim 14. (PREVIOUSLY PRESENTED) The information processing device of claim 13 wherein the heat dissipating material is formed from a non-solid material.

Claim 15. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the compressible element comprises an elastic material.

Claim 16. (CURRENTLY AMENDED) The information processing device of claim 4 further comprising a heat dissipating material between the heat conductive element and the processor, wherein the heat dissipating material comprises silicon rubber.

Appl. No. 10/727,400
Amdt. dated September 3, 2004
Reply to Office Action dated August 26, 2004

PATENT

Claim 17. (PREVIOUSLY PRESENTED) The information processing device of claim 4 wherein the processor is a microprocessor.

Claim 18. (PREVIOUSLY PRESENTED) The information processing device of claim 4 further comprising a plurality of pins coupled to the processor, the pins being perpendicular to the orientation of the circuit board.

Claim 19. (CURRENTLY AMENDED) An information processing device comprising:

a heat conductive element;

a processor in thermal communication with said heat conductive element, wherein said processor generates heat when energized, and wherein said heat conductive element dissipates heat generated by said processor;

a circuit board comprising a mounting area, wherein said processor is mounted at said mounting area;

a heat dissipating material between the heat conductive element and the processor, wherein the heat dissipating material directly contacts the heat conductive element and the processor; and

an insertion plug including an electrical contact formed at an end region of the circuit board,

and wherein the information processing device further comprises a plurality of pins coupled to the circuit board, the plurality of pins oriented perpendicular to the orientation of the circuit board.

Claim 20. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the heat conductive element is a plate.

Claim 21. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the heat dissipating material has a heat conductance rate of 1 W/m·K or more.

Appl. No. 10/727,400
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Reply to Office Action dated August 26, 2004

PATENT

Claim 22. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the heat dissipating material is formed from a non-solid material.

Claim 23. (CANCELED)

Claim 24. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the heat conductive element comprises aluminum.

Claim 25. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the heat dissipating material comprises silicon rubber.

Claim 26. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the information processing device is in the form of a cartridge.

Claim 27. (PREVIOUSLY PRESENTED) The information processing device of claim 19 wherein the circuit board is a printed circuit board.

Claim 28. (PREVIOUSLY PRESENTED) The information processing device of claim 19 further comprising a biasing element adapted to push the circuit board towards the heat conductive element.

Claim 29. (PREVIOUSLY PRESENTED) The information processing device of claim 19 further comprising a housing configured to protect the processor.

Claim 30. (CURRENTLY AMENDED) The information processing device of claim 19 wherein the heat conductive element is in the form of a plate, and wherein the information processing device further comprises a ROM on the circuit board ~~a plurality of pins coupled to the processor.~~